

CLAIMS

What is claimed is:

1. A rear projection screen without ghost image artifact to reflect and project beams containing an image to a display screen using a reflective mirror, which comprises:

a field lens, which is located on the optical path of the reflected beam from the reflective mirror to receive and converge the reflected beams coming out of an outgoing surface;

a diffusive plate, which is located on the optical path of the outgoing beams from the field lens to display the image contained in the beams and to adjust the view angle and gain of the image; and

a diffuser, which is located on the field lens on the side of the reflective mirror to scatter the beams from the reflective mirror and the multiple internal reflection beams inside the field lens.

2. The rear projection screen of claim 1, wherein the diffusive plate is further provided with a lenticular lens.

3. The rear projection screen of claim 1, wherein the field lens is a Fresnel lens.

4. The rear projection screen of claim 3, wherein the thickness of the Fresnel lens is decreased so that the multiple internal reflection beams inside the Fresnel lens coincide with the original beams.

5. The rear projection screen of claim 4, wherein the thickness of the Fresnel lens is smaller than 0.5mm.

6. The rear projection screen of claim 1, wherein the diffuser has a surface with expanding curves.

7. The rear projection screen of claim 6, wherein the surface with expanding curves is made by ejection formation using a mold with expanding curves.

8. The rear projection screen of claim 6, wherein the surface with expanding curves is made by pressing formation.

5 9. The rear projection screen of claim 6, wherein the surface with expanding curves is made by AB gluing.

10. The rear projection screen of claim 6, wherein the surface with expanding curves is made by UV curing.

11. The rear projection screen of claim 1, wherein the diffuser has a frosted surface.